

Northumbria Research Link

Citation: Scott, Alister, Dudley, Andrew, Barry, Veronica and Kotter, Richard (2018) Places of urban disorder? Exposing the hidden nature and values of an English private urban allotment landscape. *Landscape and Urban Planning*, 169. pp. 185-198. ISSN 0169-2046

Published by: Elsevier

URL: <https://doi.org/10.1016/j.landurbplan.2017.09.004>
<<https://doi.org/10.1016/j.landurbplan.2017.09.004>>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/31851/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

www.northumbria.ac.uk/nrl



Spaces of urban disorder? Exposing the hidden nature and values of an English private urban allotment landscape.

Abstract

Increasing urbanisation is placing significant development pressure upon urban spaces and green infrastructure. Allotments have strong cultural roots in the urban domain with emerging evidence of multiple health and quality of life benefits associated with their use, management and existence. However, they increasingly represent a remnant landscape, out of order and unproductive according to conventional economic assessments of urban land use. Allotments are contested spaces; seen as opportunity spaces for redevelopment to meet housing demands or as growing spaces for escape and socialisation. This paper employs a phenomenological approach to explore the values and perceptions of plotholders, residents, planning managers and allotment bodies relating to one privately owned allotment in Dudley, West Midlands, UK. Our focus on private allotments fills an important research (lack of information on ownership and spatial extent) and policy gap (treated differently to public allotments as open space in planning policy). Semi-structured interviews reveal that the allotment site is valued by plotholders and nearby residents on a wide range of ecosystem services and community benefits with only minor concerns about modern allotment infrastructure and bonfires. This positive picture reflects strong local governance and positive community relationships. However, there was a misunderstanding among residents that the allotment had equal protection as a public site. It is recommended that planning policy treats both public and private sites equally and that more research is conducted on the ownership, distribution and governance of private allotment sites given their critical roles in urban planning and placemaking.

Key words: Private allotments; Urban Agriculture; Spatial Planning; Urban space; Order/Disorder

Introduction

There are now estimated to be some three million allotments across Europe which collectively constitute a valued social and environmental resource (Van den Berg et al., 2010). Allotments are defined “as a parcel of land being allotted to someone for their own use” (Bell, 2016:1). Allotments form part of the wider global urban agriculture movement as citizens take advantage of the multiple benefits generated by growing their own food (Jerme and Wakefield, 2013; Gorgolewski et al., 2011; Hardman and Larkham, 2014; Bendt, et al., 2013). Allotments differ from other forms of urban agriculture due to their bespoke legislation and the formality and structure in the way they involve people (Bell, 2016). Allotment sites set aside individual plots, whereas

new forms of urban agriculture, such as ‘community gardens’ favour more collective aspects of cultivation (Adams and Hardman, 2014; Beitin, 2011; Bell, 2016; Firth et al., 2011; Holland, 2004; Glover, 2004).

Originally allotments in the UK were introduced to relieve rural poverty during the 18th century and were then adapted for leisure purposes in the densely populated towns and cities where green space was at a premium (Couch and Ward, 1997; Acton, 2011; Cooper, 2011; Barclay, 2012). Across the rest of Europe as a whole, varied manifestations of allotments arose as a response to similar drivers from the 19th century to post Second World War (Kehsvarz and Bell, 2016; Bell et al 2016).

Allotment sites have a number of complex environmental, social, cultural and economic linkages and benefits across the participants, communities and environment in which they are located (Acton; 2011; Crouch and Wiltshire 2012; Irvine et al., 1999; Preston and Wilson, 2014). These include increased sense of community, place identity, health, quality of life and local food production (e.g. Acton, 2011; Hardman and Larkham, 2014; Kingsley et al., 2009; Kingsley and Townsend, 2006; Tornaghi, 2014; Turner et al, 2011; Viljoen and Bohn, 2014; Lohrberg et al, 2016; Quale, 2009).

Allotments can challenge and confirm existing gender and power relations (Longhurst, 2006). Allotments historically convey masculine space which still dominates growing spaces. However, women are increasingly challenging masculine approaches to gardening and enhancing cultural identities (Metcalf et al., 2012). In the USA research suggests that whilst allotments can offer sites of meaning for deprived communities, these spaces can also become aligned with neo-liberal

gentrifying processes that seek to exclude poorer residents from urban redevelopment areas (Moore et al., 2014).

Whilst allotments are popular today, the nature and identities of those linkages have changed markedly over time reflecting fluctuations in supply and demand of allotments. In today's pressurised urban realm they constitute vulnerable and spatially distinctive resources; under threat due to the pace and scale of urbanisation (Barthel and Isendahl, 2013; Elmqvist et al., 2013). This is evident globally, driven by rising urban land values and planning policies that favour urban densification to prevent sprawl and by differential attitudes of policy makers to the protection and value of allotment spaces (Acton, 2011; Bakker et al., 2000; Drilling et al., 2016; Eisenberg et al., 2016; Jenks et al., 1996; Leendertz, 2013; Spiklová and Vágner, 2016).

At a UK level, *The Guardian* (2009) reported that the total number of allotments had declined steadily since the end of World War Two as they became less popular, from 1.4 million in the late 1940s to around 500,000 in the late 1970s, and with 200,000 plots sold off by local councils unable to find takers for them during the 1980s and 1990s.

In response the National Society of Allotment and Leisure Gardens (Moran, 1990), as well as the Federation of City Farms and Community Gardens are trying to reverse and revive the fortunes of urban agriculture in the UK including with a growing number of private community-managed allotments. The National Trust launched a scheme in 2009¹ which has now created over 1200 new growing plots for allotments and community gardens within a range of rural or urban communities throughout England, Wales and Northern Ireland, registered through a landshare.

¹ <https://www.nationaltrust.org.uk/features/allotments-and-growing-spaces> accessed 12th June 2017

85

86 However, whilst there is dedicated legislation for municipally owned allotment sites,
87 private sites remain somewhat “hidden” with a conspicuous lack of information and
88 data on their nature, ownership, extent, quality and spatial distribution (Leendertz,
89 2013). This raises important questions as to how they are treated in planning
90 procedures, their vulnerability to conversion (as opposed to municipal sites) if owners
91 wish to take advantage of rapidly increasing land values (Spiklová and Vágner, 2016).

92

93 Within the English planning system, protection for private sites sits within more
94 general policies for open space. For instance, Birmingham City Council’s (2016)
95 approved local plan provides a useful comparison within its statutory development
96 plan policy TP9 which covers both open space protection (within which private
97 allotments fall) and allotments. This illuminates how issues of viability and provision
98 of land as surplus need for development may override general protection. However,
99 the dedicated allotment policy has stronger requirements, processes and protections
100 relating to demand considerations as expressed through waiting lists.

101 TP9 Allotments

102 *Provision of allotments should relate directly to demand in the area. Where there is a shortage*
103 *of provision then consideration will be given to using other surplus open space land for*
104 *allotments. Allotment land will only be released for development where it can be shown that*
105 *the site is not required to satisfy the demand for allotments*

106 TP9 (Open Space)

107 *Planning permission will not normally be granted for development on open space except*
108 *where:*

- 109 • *It can be shown by an up to date assessment of need that the open space is surplus taking*
110 *account of a minimum standard of 2 ha per 1,000 population and the accessibility and quality*
111 *criteria listed below.*

• *The lost site will be replaced by a similar piece of open space, at least as accessible and of similar quality and size.*

• *Where an area of open space is underused, as it has inherent problems such as poor site surveillance, physical quality or layout, which cannot be realistically dealt with, then in this case proposals that would result in the loss of a small part of a larger area of open space will be considered if compensation measures would result in significant improvements to the quality and recreational value of the remaining area.*

(Birmingham City Council, 2016: TP9: 80)

This paper addresses what we believe to be a major research deficit on private allotments within a phenomenological case study exploration of one private urban allotment site in Coseley, West Midlands. We argue that small scale qualitative studies have value in exposing new research agendas that can be upscaled subsequently given its position at the fringe of current urban agriculture and allotment research (Schoneboom and May, 2013). We use the work of Qvistrom (2007) on landscapes out of order to characterise both public and private allotment spaces which, in an increasingly technocratic urban landscape where the fetish for order subjugates and reduces nature and landscape to neat Euclidian constructs, located and mapped in two dimensional space, and consequently zoned according to land values and most profitable uses, is somewhat anachronistic. Investigation of differing perspectives from allotment users, nearby residents and planning managers through detailed semi-structured interviews enabled the values, meanings, perceptions, aspirations and interrelationships between the governance, management and vulnerabilities in this private allotment space to be explored and compared with its municipal counterpart as to their contribution of the kind of urban spaces we wish to create.

Specifically the paper will, using English policy and practice framing:

- 1) Locate the private allotment within the wider discourse of spatial planning and nature using notions of order/disorder in urban spaces.
- 2) Investigate the relationships between a private allotment site and its users, and residents
- 3) Investigate the wider governance of private allotment sites through interviews with planning managers and the National Allotment Society
- 4) Assess the extent to which private allotment sites differ in status from their municipal counterparts

Spatial planning, order and disorder in the urban realm

The character and distinctiveness of any particular landscape have their own meaning(s) to the viewer/user, which generates contestation about the kind of place that is valued and desired (Adams et al. 2014; Meinig 1979; Scott et al., 2009). *“Landscapes do not have edges, they are seamless webs which extend out in all directions, constrained only by the conceptual horizons of people for whom spaces mean something”* (Darvill 1998: 16).

Qviström (2007) focuses attention on how built environment professionals view and shape their worlds through technocratic “lenses” championing order and regulation, seeking to neatly classify and divide objects, communities. Hinchliffe (1999) exposes the dualism between the desired rational order of the city as opposed to the inherent disorder of nature and wilderness. Thus nature becomes antithetical to urban ideals of civility and culture (Whatmore and Thorne, 1998; Anderson, 2000).

Allotments encapsulate this ambiguity both spatially and existentially, resulting from their varied urban manifestations and their transcendence of conventional rules (Crouch and Wiltshire, 2012; Costa et al., 2016). According to Certoma and Notteboom

(2015) urban gardening practices reflect more informal modes of planning but supported by a transactive governmentality which shapes and transforms both public and private urban space. Qviström (2007) terms this a “landscape out of order”, reflecting a wider body of work that critically examines the way space is ordered and managed. This builds on ideas of Lefebvre (1991) with his predilection towards functional and technical ordering of space, ignoring particular sights, sounds or smells that might be considered as out of place when conceived of within a “rational”, Cartesian perspective (see also Porteous, 1985; Porteous and Mastin, 1985; Merriman, 2005; Hubbard 2011). Furthermore, Olwig (2003) views the plan or map as an instrument through which places become reduced to spatial abstractions, introducing a particular expert-led understanding of how areas should be viewed, interpreted and planned (see also Swords and Jeffries, 2015). Hence many contemporary spatial planning tools, underpinned by established rationalities such as zoning regulations, use class orders and environmental classifications rely largely on notions of order and control at the expense of more diverse types of interactions that can occur between people, place, flora and fauna in productive urban ecosystems (Prager et al., 2012; NEA, 2011; UKNEAFO, 2014). This give rise to calls for more holistic approaches and assessments that integrate landscape, biodiversity and urban development (e.g. Cutaia, 2016)

Contemporary spatial planning approaches are justified by the regulatory environment within which planning systems operate to safeguard wider societal interests. However, Edensor (2005) argues that the relationship between culture and nature is much more complex with nature having the capacity to deliver greater goods and services than more preconceived notions of managed order (Scott et al., 2014). Consequently, Hinchliffe and Whatmore (2006) argue for more fluid and relational interpretations of human interaction within different forms of biodiversity as essential components of liveability and sustainability.

193

194 Allotments, and their associated infrastructure can be located within this narrative of
195 urban landscape disorder through their “violent individualism” (Acton, 2011; Costa
196 et al., 2016; Crouch and Ward, 1997). Although allotments have particular meaning
197 and function to their users, others may view them as a cumulative jumble of
198 individual sheds creating an anachronistic landscape (Crouch and Wiltshire, 2012;
199 Steward, 2012). Thus the seeds of urban conflict are sown, dependent on context and
200 socio-political factors (Guliani, 2015).

201

202 **Urban development and allotment vulnerability**

203 The UK, like many other countries globally, is experiencing a major housing crisis,
204 with increased demand driven by both population increase and lack of building in
205 previous decades (Lyons, 2015; Sayce et al., 2012). This current wave of urbanisation
206 is nothing new; our contemporary urban realm reflects a legacy of successive waves
207 of urban expansion (Scott et al., 2013). Increasing concern for the protection of the
208 countryside has led to the development of SMART growth models favouring urban
209 densification (Jepson and Edwards, 2010, Daniels, 2001; Jenks, 1996), with resultant
210 loss of urban green space and its attendant ecosystem services (Arnett, 2013; Rudlin
211 and Falk, 2009; Barthel et al., 2010; Stefan et al., 2010; Soini et al., 2012; Dempsey et al,
212 2012; Tratalos et al., 2007).

213

214 Initially, allotment sites were often situated on green space at the edges of towns and
215 cities. However, as the urban fringe has expanded and towns and cities have grown,
216 allotments have become engulfed and, are now found scattered throughout the urban
217 realm as remnant landscapes (Way, 2008; Scott et al., 2013; Speak et al., 2015). The
218 resulting scale and location of these allotment sites within cities as brownfield sites

have made them attractive to develop for both residential and commercial reasons (Drilling et al., 2016; Sayce et al., 2012; Way, 2008; Van den Berg et al., 2010).

Spiklova and Vagner (2016) explore the pressures facing allotment sites across Europe, where policies on their protection vary. They highlight the loss of allotment sites in Prague (Czech Republic) as a result of competing pressures between urban planning and public and private interests, whereas in Basel, Switzerland, there is policy contradiction with allotment sites being sold for development despite recognition of the wider social and ecological benefits they provide.

Under current English law if no legal agreement is in place for a set period of use, plotholders have no legal rights to prevent the land owner serving a 12 month notice to evict the tenants (Chamberlain, 2013; Leendertz, 2013). The case of Queen Roads allotments Leicester in 2001 shows how, with declining interest of a majority of shareholders, 45 plots were lost to housing development with planners citing a lack of any waiting list as support for consent. In cases like this there was little incentive for the management committee to raise awareness of vacant plots, or to encourage new users to fill spaces given the profits they could make as part owners (Queens Road Allotments, 2016). Eisenberg et al. (2016: 99) argue that the “*absorption of allotment gardens by the real estate market*” raises important questions of environmental and social justice within the entrepreneurial city as residents are increasingly displaced in favour of gentrification.

Such examples have generated a wave of voluntary campaign groups rallying against allotment loss and raising public awareness of allotment attrition and vulnerability. For example, McVeigh (2015) noted for the period 2007-2014 that 194 of 198 applications for allotment closure were granted by the Secretary of State. The Greater

London Assembly (GLA) review of allotments in London in 2006 found a net loss of 4.2 % (statutory allotments) and 6.9% (private allotments). The Campaign for the Protection of Rural England report(s) on Allotments and community gardens in Greater London (CPRE, 2015), echoed concerns about the scale of loss, but also highlighted the proliferation of smaller (private) community gardens which were seen to be changing the face of allotment gardening across London. Indeed, this can be seen as part of a wider movement by UK cities to encourage and support cross-integration and planning for co-benefits of health, biodiversity and urban food production as part of a new “urban foodscape” (Morgan, 2014; Port and Moos, 2014; Viljoen and Bohn, 2014). For example, Brighton & Hove are using supplementary planning guidelines which now are formalised within the local plan to incorporate food into the planning system and encourage more food growing spaces in the city. Councils have also produced non-statutory Allotments Strategies highlighting initiatives that can be provided as an incentive for people to take on plots. This includes arranging for overgrown plots to be cleared and prepared ready for new holders to take over (Rabbitts, 2013). Localism also provides new opportunity space within emerging neighbourhood plans where new planning powers provide communities with a means to protect existing allotments and identify new plots. (HM Government 2011)

Arguably this discourse reflects a modal shift in the way urban residents are constructing and reinterpreting over the time the character and meaning of urban garden, allotment and community (Kurtz, 2001: 668).

Nevertheless, at the heart of the tension between allotments and possible alternate uses is how land is valued and priced through economic models (HM Treasury, 2014). Traditional neoclassical economic theory views allotments as inefficient use of urban

space (Nathan and Overman, 2011) as this informal use doesn't sustain the high land values and rents thus creating market pressures for more profitable uses of the land (Adams et al., 2014). Yet it is increasingly valued as a social and environmental resource with significant ecosystem service benefits (Speak et al., 2015; Lohrberg et al., 2016).

Exposing the multiple benefits of allotments in the urban realm

Urban agriculture necessitates a re-interpretation of post-productivism in urban space given its consumptive-productive interface (Lin et al., 2015; La Rosa et al., 2014; Slee, 2005) resulting in multiple ecosystem service benefits beyond food growing per se. These include biodiversity, climate change mitigation, urban waste minimization, physical exercise, mental well-being, diet improvements and increased social contact (Angotti, 2015; Gorgolewski et al., 2011; Badami and Ramankutty, 2015; Reynolds, 2009; Speak et al., 2015; Wood et al., 2016; Perez-Vazquez et al., 2006; Van den Berg et al., 2010). For example, Manchester launched its urban food strategy in 2007, after an informal partnership had been forged between the City Council and the National Health Service (NHS). Likewise, Bristol set up a formal Food Policy Council in 2011, coincidentally the year the UK's Sustainable Food Cities Network was also launched which includes Brighton, Sandwell, Sheffield, Plymouth and London; areas which have designed distinctive urban food policies in recent years (Morgan, 2014).

However, research on the benefits for users of urban agriculture landscapes are largely anecdotal with a lack of empirical evidence hindering its wider legitimisation beyond relatively small scale studies (Van den Berg et al., 2010) Notwithstanding this, Quale, (2009) provides a useful regional study in Northern England across 22 sites; Speak et al. (2015) provide a useful comparative assessment of ecosystem benefits between UK and Poland; Wood et al. (2016) provide a useful example showing how allotment

gardening can play a key role in promoting mental well-being and its potential use as a preventative health measure whilst Perez-Vazquez et al. (2006) demonstrate the importance of non-market benefits of allotments using contingent valuation methods.

Neighbouring residents also value the green open spaces, 'rural' views and cultural heritage (La Rosa et al., 2014) from the urban allotment. For example, views of green space at work places have been shown to promote employee well-being (Gilchrist et al., 2015; Dempsey and Brown et al., 2012). There is also emerging evidence of the value(s) of managed open space in the urban environment in terms of the community, health and environmental benefits as spaces for people to engage and relax with nature (Bragg and Atkins, 2016; Martin and Marsden, 1999; Moseley et al., 2013; Peschart and Stigsdotter, 2013; Van den Berg et al., 2010). Furthermore, due to the increase in urban density and high property prices, people are less likely to be able to afford a home with a garden or private outside space; hence allotments are now being seen as a viable alternative for leisure and access to open green space (Van den Berg et al., 2010; Hough, 2004).

Allotments are not just growing spaces for vegetables and biodiversity sites; they provide an important component of place-identity: "*.....they herald the creation of new multifunctional landscapes combining utility, meaning and beauty with local distinctiveness*" (Way, 2008:39). These cultural ecosystem services build a strong sense of place for beneficiaries with memories and oral histories being passed down between generations. They also serve significant social functions as both formal and informal community meeting spaces (Bendt et al., 2012; Barbosa et al., 2007). Economic aspects of allotments are also evident through the informal value of exchanges and transactions of produce, along with the positive impact on property values for houses

overlooking aesthetically pleasing green space (Speak et al., 2015; La Rosa et al., 2014; Guitart et al., 2012; NEA, 2011).

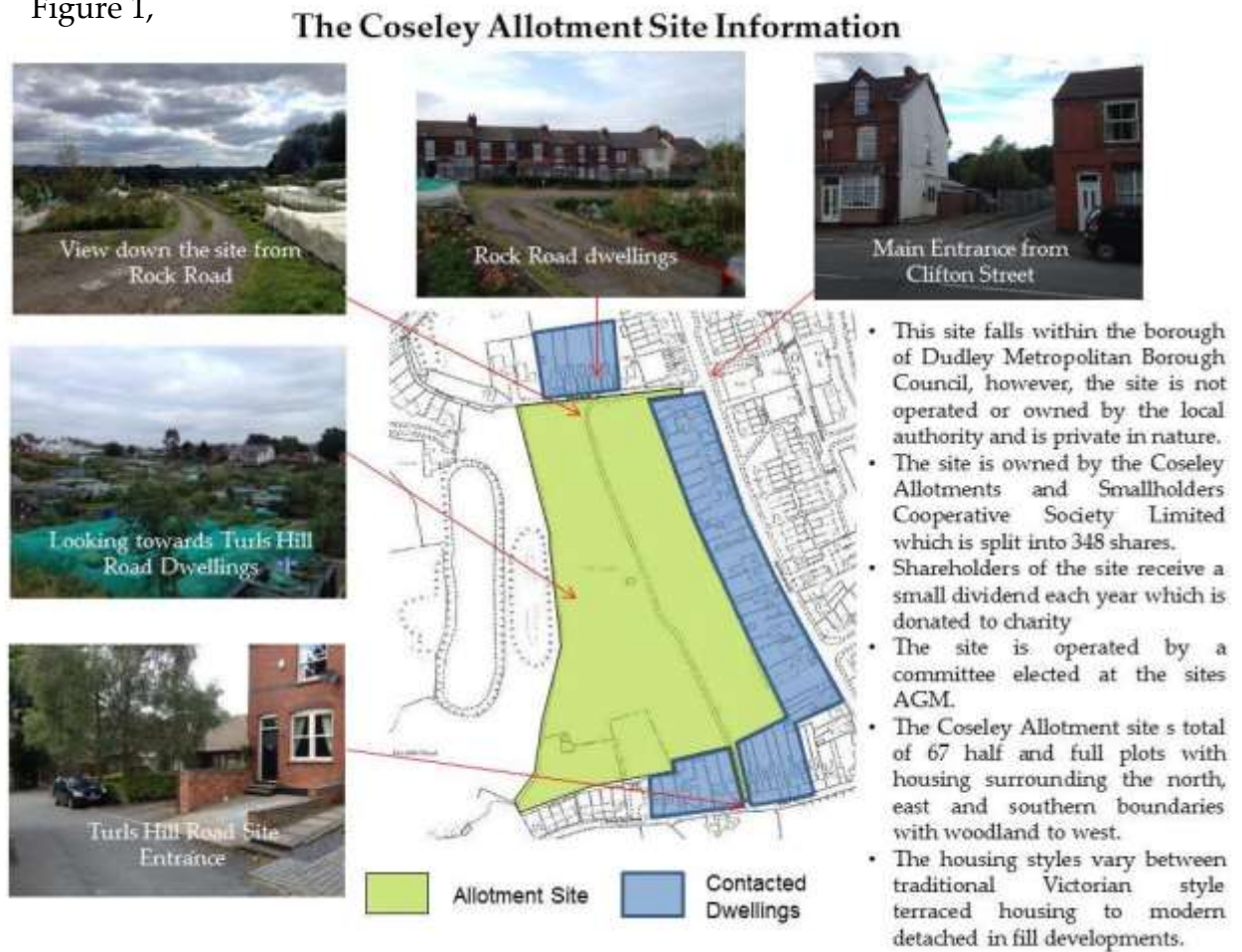
Cumulatively these multiple benefits challenge the established stereotype as allotments being simply the preserve of retired men (Way, 2008). In places they are extremely popular commanding long waiting times as the provision of municipal sites and plots has been in marked decline, although this varies across the country (Acton, 2015; Chamberlain, 2013; Reynolds, 2014; Martin and Marsden, 1999), as well as more regionally and locally. A survey by the National Allotments Society of 323 English councils showed 78,827 people were on waiting lists as opposed to 12,950 in 1996 (Campbell and Campbell, 2013).

The previous section has exposed the multiple benefits municipal allotment spaces provide. We argue that the benefits are likely to be the same for private allotments. However, there are no national, regional or local databases on the extent, spatial distribution and demand for private allotment sites, nor documentary evidence of their underlying governance and land ownership models, nor any academic research, which cumulatively raises questions over their value and long-term future. Consequently, this research provides an initial exploration to understand how private sites operate and are valued and whether their different governance arrangements result in specific challenges and experiences from those faced by municipal allotments.

Methodology

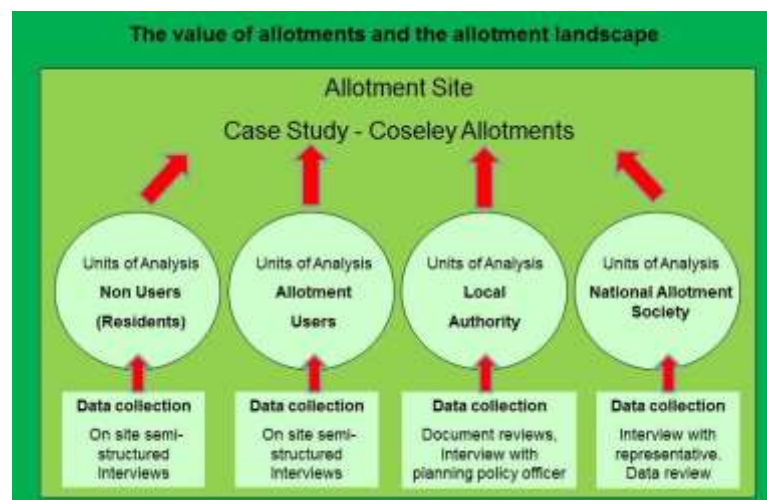
Positioned within a phenomenological research epistemology, this small scale qualitative research elicits the values, meanings and experiences of users, residents and planning managers in relation to one private allotment landscape. The Coseley Allotments site, Clifton Street, Coseley in the West Midlands UK (Figure 1) was selected as a detailed case study predicated upon researcher insider perspective within the council allowing access to information and gatekeepers, set within the limitations of a small research project. The Coseley site is long established, with the allotment site celebrating its 100th anniversary in 2016. Established in 1916 the site is owned by 348 shareholder members of the Coseley Small Holders Cooperative Society Limited, an Industrial and Provident Society. The site has 67 half and full plots surrounded by housing on three sides (Clifton Street, Rock Road and Turls Hill Road (Figure 1)). Currently the site has no plot vacancies and has a waiting list of three. In 2011, the borough of Dudley had 624 people on council waiting lists for allotment sites (Campbell and Campbell 2011). Dudley Council own a total of 38 allotments sites at various locations within the borough of which 32 sites are managed by allotment associations and 2 which are managed by the Council and four currently redundant (Dudley Metropolitan Council, 2017).

Figure 1,



Source: authors.

Data Collection



381

382 The data was secured from semi-structured, face to face interviews with residents
383 (n=10) and plotholders (n=12). Each interview was between 1-1.5 hours and was
384 recorded and transcribed verbatim. Additional interviews were held with the local
385 authority planning department during and after the research together with an
386 interview with the National Allotment Society (Figure 2).

387

388 Residents of all 52 surrounding properties on three roads (Turls Hill Road, Clifton
389 Road and Rock Road) which overlooked the site were invited to participate in
390 interviews (see Figure 1). Letters were hand delivered along with the project brief
391 and details of when the researcher would be available to conduct interviews. An
392 interview guide (Box 1) with specific prompts helped shape the discussions.

393 Box 1: Interview Prompt list: Residents

- 394
- 395
- 396
- 397
- 398
- 399
- 400
- 401
- 402
- 403
- *Any interests in the allotment site (plotholder or shareholder) past, present or future*
 - *Attitudes to the allotment site : visual; noise ; smell*
 - *Benefits/problems to you of living next to an allotment site*
 - *Informal or formal complaints made*
 - *Interactions with the allotment site, management committee or plotholders (direct/indirect)*
 - *Changes to the allotment in any form.*
 - *Impact on your own behaviours regarding food*
 - *Scenario: proposed housing development. Loss of allotment and impact*
 - *Any other developments supported?*
 - *Future development and management of the allotment.*

404

405 Plotholder interviews were secured after an initial meeting with the chair of the
406 Coseley allotment committee permitting researcher access to the allotment site and
407 enabling a project poster to be displayed on the site notice board requesting volunteers
408 for interviews. Again, an interview prompt guide was produced. (Box 2).

409

410 Box 2: Interview prompts for plotholders

- *Socio economic profile of the plotholder*
- *Details of the lot site and extent and duration*
- *Experience in urban agriculture/allotments*
- *Place of residence and distance to site (time taken to get there)*
- *Attitudes to your plot and its management: visual; productive; tidiness;*
- *Attitudes to the allotment site as a whole*
- *Changes over time*
- *Governance of the site and role of the management committee.*
- *Scenario: Housing development : reaction*
- *Alternative developments*
- *Future plans*

Face to face interviews were undertaken with the local authority planning department and a representative of National Allotments Society, with the results from the plotholders and residents' interviews used to gain additional insight looking towards the future of private sites more generally.

Data Analysis

All case study data collected was analysed and subject to content analysis using NVivo software to identify key themes and trends. The key themes collected from each data set were then triangulated to identify the main converging themes for discussion.

Results

The Residents' Allotment Experience

The allotment site has been an established feature of the Coseley landscape for 100 years. The residents' interviews focused on both positive and negative experiences of living next to a private allotment site. These are examined below but it is important to appreciate at the outset that the nine residents viewed the allotment as a positive amenity space, which outweighed any negative experiences for all but one of the residents.

Benefits of living next to the allotment

Each resident identified multiple benefits from living adjacent to the allotment landscape. The most common response was the importance of the open, uninterrupted views over the green space, mentioned by eight residents; a lack of being overlooked (6 residents), quietness (4 residents) and relaxation (4 residents). Resident 3, for example, referred to the *"allotment as a peaceful scene"*. The value attached to the site highlighted its importance as spaces for relaxation and contemplation; *"When you've had a hard day at work you can go out with a cup of tea, sit down and forget the world and relax"*. She also highlighted the enjoyment gained from watching people and activity in the allotment landscape and its role in helping overcome her perceived isolation; *"living alone, I see people pottering around and I don't feel quite as alone, people are always in your view"*. Resident 7 echoed the significance of the watching phenomenon; *"I also find it relaxing watching people pottering around"* whilst Resident 4 noted a seasonal and temporal dynamic to the watching process; *"I like the fact you can see the seasons changing with the physical appearance of the site changing, it's like a life clock"*. Residents also recognised some economic benefits such as the increased property values with the view over the site being a positive selling feature for their properties.

The social and community aspects of the allotment were also valued with multiple interactions between residents and ploholders. For example two of the residents interviewed commented that ploholders had shared produce with them. Resident 2 confirms the importance of local place associated with the harvest from the allotment; *"There is something really powerful in being able to get freshly grown products from the ground with the ploholders. That makes this place so special"*.

Consequently, all but one of the interviewed residents would recommend living next to the allotment with eight of the interviewed residents not wanting to see the allotment site used for any other purpose. The remaining two of the interviewed

residents on Rock Road argued for a small section of the site to be used to address the narrow nature of the street or include a parking area for residents.

Disbenefits of living next to an allotment.

The site's visual appearance attracted most negative comment with nine of the interviewed residents expressing some disquiet. The main source of contention for residents was the detrimental visual impact of large scale nets and polytunnels used to protect crops from pests. Furthermore, the cumulative impact with other allotment infrastructure such as sheds, unused equipment and waste combined to produce a messy and unsightly landscape at times (Figure 3).



Figure 3: Unsightly allotment paraphernalia. Source: authors

As Resident 3 lamented; *"Some plots have gone barmy with green netting"*. Resident 1 noted that this reflected a recent change to the allotment landscape; *"Generally the allotments are well looked after; (but) in the last couple of years there has been a significant increase in the number of unsightly polytunnels"*. Resident 4 highlighted the variability of the management inputs and tidiness by different plotholders affecting the allotment landscape; *"(they) have different standards of care in terms of shed and plot conditions"*. Indeed, this was evidenced by our own visits to the site which revealed some evidence

of overgrown plots and selective rubbish dumping (Figure 3). However, the majority of plots were seen to be well maintained.

The other principal negative feature for two of the interviewed residents was the bonfires (Figure 4). Resident 10 was clear that such activities constituted a serious public nuisance; (the) *“lighting of fires is our biggest bug bare, people always light them and leave them and it is always at the plots closest to the houses. The smell of smoke then comes through the house or makes the washing smell.”*



Figure 4: Smoke on the Coseley site. Source – authors

Rock Road residents living in the only properties to directly front onto the allotment site (Figure 1), had specific concerns over the narrowness of the access road exacerbated by the 1.8 metre high palisade fence adjacent to the road. This boundary caused concern for residents as weeds could grow through the fence and cause damage to cars (Figure 5). Resident 2 commented; *“Parking is an issue on this street, or lack of it; we think the fence looks terrible and has loads of weeds and bushes growing through it. This scratches our car and our neighbours”*.

511



512

513

Figure 5: View from a Rock Road property over the allotment site. Source: authors

514 Two of the residents identified site noise and disturbance as affecting their quality of
515 life but this was framed around the access issue for cars getting on to the site due to
516 the opening and closing of the metal gates. Previously, the gates on Turls Hill Road
517 used to cause traffic issues for residents with driveways and the road being blocked
518 as ploholders opened the gates to gain access to the site. As a result of residents'
519 concerns the gates were repositioned further back allowing cars to wait off road whilst
520 the entrance gates are opened. Whilst this addressed the issue of waiting cars on Turls
521 Hill Road it has increased overall noise and disturbance for 2 neighbours.

522

523 *Planning Application Scenario*

524 The planning application scenario presented to interviewees involved a hypothetical
525 housing scheme which would result in the redevelopment of the site and loss of the
526 allotment space. This produced both highly negative and emotional responses from
527 all residents who objected strongly to any application for development on the site.
528 Resident 7's objection was typical, citing a sense of loss of openness and semi-rural
529 amenity; "...loss of view to the rear is a concern; I personally enjoy the open aspect to the site
530 and its semi-rural appearance". Resident 2 highlighted the value the site had as a proxy

for a countryside location in an urban setting; *“... it’s very peaceful and as close to being in the countryside without actually driving out into the countryside”*. A further dimension of landscape importance is revealed through a respondent’s “memoryscapes” as Resident 6 reflected on the importance of the cultural dimension of landscape value; *“I remember when I was a kid the gate and fence wasn’t there, you could walk through the site, it was like you were walking in the countryside”* (Resident 6).

The planning scenario also revealed a significant misunderstanding of the status and vulnerability of this private site within policy and planning. Half (5) of the interviewed residents wrongly believed that the site could not be built on due to the legal protection of allotment sites. Comments included Resident 5; *“We didn’t think you can build on an allotment site anyway?”*; Resident 10; *“Aren’t allotments protected by law? Or some type of legislation to stop this happening?”* Resident 2 commented; *“As far as I know allotments are protected, we feel pretty safe that this type of thing wouldn’t happen here”*. Interestingly, Resident 7 made reference to the fact she held one of the shares owning the site with the recognition that if sold, it could result in a substantial financial gain. However, her sense of history and shared experience was seen as more important than any personal financial gain; *“I currently get a dividend of 50p each year which goes to charity, even with that, I wouldn’t want the site lost, with my dad I have a lot of history with the site and I have been in this house all my life”*. Seemingly, the strong cultural ties, developed over time, and sense of place, combined to outweigh considerations of financial benefit.

The plotholder allotment experience.

In recent years there has been a revival in allotment gardening meaning many sites no longer struggle to find members. The Coseley site is no exception with Plotholder 2 remembering when they took on their plot only 5 years ago there were 5 plots

558 available for rent; now it is full. Furthermore, the plotholder remembered through
559 visiting his father on the site that 20 years ago only 12 plots were used. This also
560 reveals the allotment as part of the continuation of important and valued family
561 traditions.

562
563 Plotholders travelled to the site from varying distances, ranging from an average of
564 two miles to five miles at the furthest point. This reflects the increasing demand and
565 pressures on public allotment sites, requiring people to search further afield for a plot.
566 Multiple motivations were involved in taking on an allotment plot amongst those 12
567 interviewed. Being a hobby (7 responses), exercise (7 responses) and production of
568 food (6 responses) dominated the responses with socialising, fresh air, enjoyment,
569 organic food, relaxation and a lack of a garden at home, all attracting at least one
570 response. The age and gender profiles were also interesting, challenging the 'old
571 man' stereotype with a profile ranging from 35-75 with 3 women plotholders
572 interviewed.

573
574 The growth of organic foods and knowing what has gone into the food was
575 mentioned by plotholder 9 as a key catalyst; *"We like to buy organic food but it's really*
576 *expensive so growing our own is a great way to cut these costs, with harvesting your food*
577 *comes a big sense of achievement. It's been well worth it".*



Figure 6: Socialising on the allotment, Sunday wine club. Source: authors

Allotments do not just provide spaces for people to grow food. Plotholder 11 alludes to the importance of the allotment as an “occupational community” (Newby, 1979); spaces for socialization. For example, the Sunday afternoon wine club (Figure 6), where plotholders met for a chat over a glass of wine, reinforced the importance of social bonds that are created and reaffirmed. Indeed, Plotholder 10 felt the allotment site offers more of a community atmosphere than the area where he lives because *“everybody on the site talks to each other and knows each other’s names”*.

Plotholders viewed their own allotment landscape in predominantly positive terms (Figure 7), albeit with one exception. Here the functional productive aspects were most evident but the aesthetic qualities were also appreciated. The perception of the site as a ‘green lung’ captures the allotments’ importance as a core component of green infrastructure in the urban realm with important health benefits. However, two plotholders did recognise the varying level of management effort identifying a problem of untidy and overgrown plots.



Figure 7: Plotholder key word cloud descriptions of the site.

Plotholder 1 highlighted the more positive aspects of the design and management practice when compared with nearby municipal sites set within their strong local governance mechanisms; *“When compared to other sites ours is well presented, only a few plots are overgrown and we don’t have massive amounts of sheds. You have to get permission for a shed or greenhouse and its location from the committee before it is erected”*. There was also recognition of the positive way the site committee organised voluntary workdays to manage the site, including work cutting back hedges, removing dumped materials from vacant plots and general clearance.

Whilst the plotholders acknowledged the negative visual impact of protection nets, Plotholder 3 revealed their functional importance for pest control; *“The trouble is it’s needed to stop pigeons and butterflies that can decimate what we are growing. Badgers are bad here as well as you have to cage in sweetcorn to stop them taking that. It’s frustrating when you put effort in just to lose what you have grown. I agree though, looking around at this level, they do look unsightly”*. Plotholder 1 was also sensitive to the disturbance factor of bonfires mentioning some of the rules that were in place to limit the impact; *“It’s in the site rules that we don’t allow fires on windy days, you can’t burn material brought off site*

and we also discourage fires on plots next to houses". Furthermore, the committee has also erected a notice on the display board of the relevant smoke nuisance legislation.

Planning Scenario

The plotholders responded to the proposed scenario of housing development in a similar vein to the residents. They stated an overwhelmingly negative and emotional response. Words such as "anger", "worry", "deflated" and "devastated" conveyed a strong sense of loss and resentment. Plotholder 8 lamented the loss of continuity of a way of life; *"lots of people would not be able to maintain their hobby/lifestyle which has been the case for 100 years at Coseley"*. Plotholder 11 described the allotment as *"a valuable community asset"* and expressed the sense of shock he would feel if somebody wanted to build over it. Plotholder 1 highlighted the importance of the social and cultural value of allotments as performing a vital community role; *"It's not just the fact I would lose my plot, it's the people, friends and atmosphere, don't think that could be replaced elsewhere. Plus the only other plot in the area has a large waiting list"*.

An interesting tension was apparent in discussing the planning scenario as the allotment site looked to celebrate its 100th anniversary in 2016. At the AGM held in April 2015 the allotment committee asked its members for ideas how to mark this occasion (Committee Minutes, 2015). An idea for an allotment open day was proposed. However, the committee expressed reservations due to concerns that the increased publicity and exposure might ironically make the site vulnerable, enabling shareholders to become aware of the size and potential value of their asset; a potential victim of its own success. This resulted in a much lower key activity and celebration with limited press exposure. This illuminates the vulnerability plotholders felt themselves over their own private allotment and the need to dilute the community asset value; keeping a 'low profile' to avoid future loss. It is important to acknowledge

653 that ploholders are not necessarily owners (shareholders) although one of our
654 residents was.

655

656 *Interviews with The National Allotment Society and Dudley Metropolitan Borough*
657 *Council Planning Authority.*

658 The interview with a spokesperson from the National Allotment Society (NAS)
659 confirmed our hypothesis that there is insufficient protection for private allotments
660 sites. The principal concern was that private “*allotments are being subsumed into open*
661 *space policies*” rather than being given their own bespoke protection. Furthermore,
662 there was concern over whether planners and councillors recognised the multiple
663 values and benefits arising from private allotments when considering planning
664 applications for development particularly in brownfield sites. The current housing
665 crisis, concomitant with the push for new houses, was a source of concern for the
666 society with economic benefits seen as outweighing any community and
667 environmental benefits which in themselves were rarely made explicit. As such the
668 allotments provide important functional green spaces which once lost cannot be
669 replaced: “*there needs to be more appreciation of the genius loci of the allotment and if you*
670 *move it, it's gone*”. They cautioned against the current government policy of urban
671 densification; filling towns and cities in, with potential building on allotment sites
672 which was not regarded as a sustainable answer. There was also concern at the lack
673 of awareness of their nature, extent and ownership thus keeping these private
674 resources hidden from public view and accountability. Significantly, no database is
675 kept by the NAS on such sites.

676

677 *Dudley Metropolitan Borough Council Planning officer interviews*

678 At the time of research, Dudley MBC did not have an adopted Local Plan in place,
679 working instead to the Unitary Development Plan (2005). Within the new Borough
680 Development Strategy (BDS), Policy S34 on Allotments outlines the status of
681 protections for municipal allotments sites (DMBC, 2016).

682 *The redevelopment of allotment sites for other uses will not be allowed if a substantial part of the site*
683 *is in use; or there is proven demand for allotments in the area.*

684
685 *Redevelopment of an allotment site will only be allowed if alternative allotment provision of the same*
686 *or better quality and quantity is provided in the locality before the use of the existing allotment ceases.*
687 *Planning permission will not be granted simply because an allotment site has been allowed to fall out*
688 *of use and become derelict. Proposals for the provision of new allotment sites will be permitted*
689 *provided that they:-*

- 690 • *are accessible by a variety of transport means, including walking and cycling as well as adequate*
691 *parking*
- 692 • *do not result in the loss of, or harm to a high quality nature conservation site*
- 693 • *do not harm the visual amenity, landscape setting and appearance of the area*
- 694 • *do not detrimentally harm the amenity of adjacent residents and/or highway safety*
- 695 • *safeguard and enhance any biodiversity features where possible to help support wildlife.*

696
697 *On all allotment sites, the Council will encourage sustainable methods of power, the storage and re-*
698 *use of water and on-site composting where appropriate do not result in the loss of an area of*
699 *importance and value for informal or formal recreation*

700

701 In addition, allotments feature within Policy S2 highlighting the need for planning for
702 a healthy borough, including supporting healthy choices and active lifestyles. This
703 includes a focus on accessibility and protection of green spaces, including ‘creation
704 and protection of allotments’ and ‘promoting greater access to healthy food’. This was
705 incorporated into a previous supplementary planning document “Planning for
706 Health”(2013) which cemented the authority’s opinion concerning the value of
707 allotments of increasing access to fresh food through the retention and provision of
708 allotments. Other policies within the BDS, including S19 on the Green Network, and
709 S29 Public Open Space can also be seen to have relevance to allotments.

710 The interview with a senior planning policy officer revealed that Dudley are placing
711 increased importance on allotments as part of promoting healthy lifestyles,
712 highlighting that demand on the borough for allotments has increased.

713 The new BDS Allotments policy S34 states that redevelopment of an existing site will
714 only be allowed if the alternative provision is of the same or better quality.

Importantly, it also makes reference to permission not being granted because a site has been allowed to fall out of use. This policy, however, only has relevance to municipal sites due to owners of private site being able to close the allotments without requiring permission. Crucially, a private site like Coseley would fall under the open space provision of the local development plan and core strategy. This policy is far less clear in its protection of allotments and according to the planner would seemingly enable some housing development if green infrastructure was in place as part of any masterplan. Anecdotally, one green space officer commented that private allotments are “completely separate” from the council “as they are privately owned”, although acknowledging that they do pass people who are interested in growing to these sites.

Policy S29 - Public Open Space (DMBC, 2016)

Development proposals which impact on areas of Public Open Space (POS) will be assessed against the criteria which inform on the value of such areas as set out in Core Strategy Policy ENV6 (Open Space, Sport and Recreation), and also the criteria set out in the NPPF at paragraph 74 (or superseding policy). These provisions will also apply to assessing proposed or existing, unlawful encroachments into areas of POS as a result of the extension of the site curtilage, including the extension of private garden land.

Developers will be encouraged to seek opportunities to use open space as a dual function, offering a reduction in flood risk (through flood water and surface water storage) and improvements in amenity. Dudley Council will seek to identify areas of tranquillity and protect the value of such areas to the local community as publically accessible areas which are undisturbed by significant noise and light pollution.

A further interview in 2016 with a planning officer on the vulnerability of private allotments exposed a clear perception that they faced increased risks when considering the demand for densification in existing urban cores and their uncertain future and looser policy environment.

“... private sites, the only thing really that is preventing them from being developed is local planning policy, obviously we don’t look to designate allotment sites for housing, or anything; we don’t highlight and put neon lights and say “lets develop here”, but in a speculative bid, it would come down to the full assessment in an application process, and that is very much geared around what people want to do with it. The other argument, if people come forward with arguments of them being underused and people want to put alternative uses that are community related, I would imagine there would be some strong argument to lose them, not necessarily for a commercial development, but for another community use, for example, there would be an argument”

There was a clear feeling that such sites really needed but that the local authority were limited in the protections they could use. *"...some more national level protection, I think allotment sites are always going to be vulnerable, because you have always got the only things standing in the way of development is local policy and that is not enough to protect them in the long term I don't think".*

The interviews, however, confirmed that no allotment sites in Dudley - either statutory or private - have been allocated for housing in the proposed plan at the present time as sufficient housing land had been allocated to satisfy demand during the plan period. In addition, the National Allotment Society data confirms between 2007 and 2015, Dudley MBC has not applied to dispose of any of its statutory allotment sites. However, in contrast, Birmingham currently faces a 60,000 housing shortfall with a requirement under the Localism Act 2011 duty to cooperate for all local authorities to try and accommodate this unmet need. Thus prime urban sites like Coseley may come under greater scrutiny.

Discussion and Conclusions.

Public and Private Allotments: an urban landscape out of order?

This research is positioned at the interface between traditional neoclassical economic theory and urban agriculture. The former views allotments (public and private) within the urban realm as an inefficient use of space given the increased need for more housing and commercial development in urban brownfield sites (Nathan and Overman, 2011). Whilst the latter reflects a resurgent urban agriculture movement which champions new partnerships and planning policies for food production in urban areas (Morgan, 2014; Bell, 2016). The resulting discourse raises fundamental questions about the kind of urban landscape(s) we need and are actually planning for (Scott et al., 2009).

Are these remnant allotment landscapes then out of order? Speak et al. (2015) and Drilling et al. (2016) both highlight the multiple ecosystem services and multiple environmental, social and economic benefits provided by allotments. Here both a localist and communitarian perspective is apparent with associated mechanisms of self-governance and community social interactions. This generates a strong sense of place-based identity engendered through this shared sense of history and “occupational community” (Newby, 1979) where participants have a real stake in the outcome and are free to express themselves as identified by McMorran et al. (2014) in their work on crofting and community land ownership in Scotland.

Furthermore, in our Coseley private allotment case study we have captured positive resident and plotholder perspectives reflecting a valued landscape and effective governance. Effective local governance of the site is a key factor in being a good neighbour to residents and in preventing site disorder, nuisance and vandalism. The Coseley site committee is seen as proactive in addressing concerns brought forward by neighbours and employs its own simple rules in order to keep a well-managed site without preventing plotholders from expressing themselves. Effective local governance and well maintained plots are an advantage for the allotment site drawing less attention from outside. In addition, overgrown plots covered in dumped rubbish are much harder to let than clear ones, which attract plotholders (Acton, 2015).

However, protecting an allotment for its own sake is not an appropriate response in today's pressurized urban landscape and it is here that transparent ecosystem service assessments and trade-offs of different options may help inform decisions as to the best land use option (Cutaia, 2016; Scott et al., 2014; Speak et al., 2015) although transparency is not always welcome (Förster et al., 2015). Undoubtedly, this will transform traditional neoclassical economic models that have failed to capture and account properly for environmental and social benefits. Furthermore, whilst we have recorded a decline in allotments for individual plots we have observed a counter shift

807 towards more community food growing which reflects a growing trend in urban
808 agriculture evolution in urban areas globally (Kurtz, 2001).

809

810 **The fallacy of allotment protection in private allotments**

811 One year's notice from a landowner (s) can lead to a loss of a private allotment in a
812 UK context. The Coseley site has greater protection than some private sites as the
813 ownership is split into 347 shares, spreading the risk of loss as opposed to a site
814 owned by a single private landowner. However, in theory, it would only take one
815 person to investigate the land value and offer to purchase shares for the site to be at
816 risk. This might be a particularly persuasive argument in deprived areas like Dudley
817 with an ageing population suffering under austerity with concerns about future
818 social care and pensions. Indeed, Resident 7 recognized the financial gain that could
819 be made by selling her shares but was held back because of the strong cultural ties
820 and association with the allotment landscape. Others shareholders may have other
821 priorities which makes the site vulnerable. This was borne out by the planner
822 interview(s) which confirmed their view that Coseley was vulnerable partly due to
823 location and its brownfield status.

824

825 There is a significant misconception towards protections for private allotments
826 where half of the interviewed residents and several interviewed ploholders wrongly
827 believed that the private site was bestowed with the same level of protection as
828 publicly owned allotments. Indeed, the discussion about limiting publicity in
829 recognition of the site's centenary reflects a tension between exposing this site to
830 wider public gaze and the realization of the potential development value of the site.
831 This exposes the hidden nature of the private allotment phenomena with a lack of
832 knowledge of their vulnerability, geographic location, spatial extent, ownership and
833 overall suitability/capability for future development. However, as indicated, in the

literature review there is a growth of more community based allotments through the voluntary groups such as the National Trust².

Crucially for this research there is no map or inventory of private allotment sites in the West Midlands, or nationally with only limited ad-hoc global research studies (e.g. Spiklová and Vágner, 2016; Kinglsely et al., 2009). This necessitates research into the extent, nature and spatiality of private allotment sites especially as there are long council waiting lists in areas where private allotments exist (600+ in Dudley at the time of writing).

The views of the planners and National Allotment Society suggest that there is emerging support for national legislation to protect both private and public allotments equally as a uniform land use category and to ensure that the multiple benefits they deliver are accounted for in decision making with any disbenefits minimised through effective governance. This synchronization of policy responses to private and public allotments has global application and relevance. We argue that there is a case for public and private sites to be merged under one planning policy rather than the current duality with dedicated allotment policies for public sites and open space policies for private sites. Such a policy development can be seen in conjunction with support for urban agriculture and the recognition of the wider green infrastructure network of a city which in itself is poorly protected under planning policy (Mell, 2014).

The hypothetical redevelopment scenario of the allotment site revealed strong support for the protection of the allotment space from both plotholders and residents. The

² <https://www.nationaltrust.org.uk/features/allotments-and-growing-spaces> accessed 12th June 2017

multiple dimensions of this emotional attachment to the site reveals a powerful cultural asset which can command significant local opposition going beyond a simple NIMBY ethic (e.g. Addley, 2015). This becomes significant as land values are increasing, and with the Coseley site being large in nature, the prospect of the multiple owners wishing to cash in on the land becomes a real possibility. Indeed DCLG (2015) land value estimates for policy appraisal for Dudley reveal that 1 ha of land post permission is worth £1.3 million. Thus across the 347 shareholders there is potentially a very valuable resource if planning permission could be secured. The government's desire for more housing, translated into national planning policy guidance, represents a major concern for the National Allotment Society with the society questioning why private allotments cannot be embedded and safeguarded in development proposals rather than replaced with cheaper open space proposals.

The private allotment, spaces of socialization and community cohesion?

The benefits from allotments were not just confined to users. Those residents living nearby valued the health, social and community bonds that are engendered (Moseley et al., 2013). Equally an important "watching" element was exposed where the functional and dynamic landscape provided interest and security to residents. Here our results accord with Camps-Calvet et al. (2016) with the allotment viewed as landscapes of socialization as much as for gardening. But despite these wider benefits, private sites such as Coseley are still forced to rely on much weaker open space policies where contested issues of "need", not value, become central considerations. Furthermore, alternative open space in a proposed development can replace the space lost from a private allotment in a way that is not allowed under allotment policy.

Much has been written about the social landscape of the allotment as a benefit in terms of a meeting place for communities of all cultures (e.g. Barbosa et al., 2007; Van den Berg et al., 2010). Our results support this with strong social bonds in evidence between the plotholders. Indeed, plotholders feared the loss of irreplaceable friendships made on the site should the allotment be developed. The residents also have important connections with the site through the visual, social and trading interactions and the important passive act of watching allotment activity from a distance as a viewer. Thus the amenity view over the allotments with its openness and semi-rural nature is arguably just as important for residents in terms of its benefits as the physical use of the site for its users. These results support Swanwick (2009) who introduced the idea that the multifunctional aspects of landscape and not just its visual appearance should be taken into consideration in decision making (see also Tress et al., 2005; Scott et al., 2009).

Therefore our findings directly challenge one dimensional neoclassical ideas of land value in a city environment that much planning practice is based upon in favour of more neoliberal and anthropogenic approaches that take account of the multiple environmental and social benefits from allotments (Adams et al., 2014; Breuste and Artmann, 2015; Reynolds, 2009; Rudlin and Falk, 2009; Van den Berg et al., 2010). It is here that capturing the multiple ecosystem services and user/resident satisfaction as integral environmental and cultural assets that add value to traditional neoclassical economic assessments (Barthel et al., 2010; Speak et al., 2015). This may help a wider appreciation of the hidden value of the allotment resources in urban areas globally challenging the neoclassical economic models that label them as out of order and ripe for more development (NEA, 2011; Qvistrom, 2007).

Applying this thinking to other countries will require more effective and collaborative governance models for effective protection and enhancement of allotment ecosystem services (Prager et al., 2011; Nikolaidou et al., 2016). This is also dependent on urban agriculture practices being seen increasingly as ordinary urban practice (Nasr et al., 2014; Miazzo and Minkja, 2013; Cockrall-King, 2012), with potential health risks found not large enough to outweigh the benefits (Leake et al., 2009).

Conclusion

The private allotment landscape is a highly valued yet hidden landscape within the urban realm both to users and nearby residents. Their status in the English planning system is currently unclear whilst set within broader open spaces policies. Moreover, there is a general misconception among residents and ploholders that private sites have the same level of protection as municipally owned sites. Yet they form part of the wider green infrastructure of the West Midlands; however there is little if any knowledge of the extent, spatiality and condition of private allotments sites. This information deficit needs to be addressed urgently in further research.

Undoubtedly, Coseley is a valued landscape in terms of its aesthetics and as a functional space with its own community providing an open space of socialization and relaxation. Nevertheless, the Coseley allotment site is 'out of order' with the surrounding urban fabric (Qvstrom, 2007) and at face value would not win any prizes for aesthetics in the traditional sense. However, in this research we have established that these sites are valued by users, residents and planners as adding value to places through the cumulative multiple benefits they generate and it perhaps through a new form of transactive governmentality that their future resilience might lie (Certoma and Notteboom, 2015).

Whilst this research paper only focuses on one qualitative case study, further research should be undertaken on the nature, role, extent and impact of private allotments and their relationships within the wider communities and places within which they are located together with the ecosystem service benefits they bestow. Given the current direction of policy towards densification, the vulnerability of such sites is of concern given the fundamental research and policy gap we have unearthed (pun intended) raising important implications for such spaces as part of the wider green infrastructure in cityscapes.

References

- Acton, L. (2011). *Allotment Gardens: A Reflection of History, Heritage, Community and Self* PIA papers: Papers from the Institute of Archaeology UCL Bartlett <http://www.pia-journal.co.uk/articles/10.5334/pia.379/> [Accessed 12th May 2016].
- Acton, L. (2015). *A Growing Place*. Nottingham: Five Leaves Publications.
- Adams, D., Scott A.J. and Hardman, M. (2014). Guerrilla Warfare in the Planning System: Revolutionary Progress towards Sustainability? *Geografiska Annaler B. Series B, Human Geography* 95 (4): 375–387.
- Addley, E. (2015). *Farm Terrace allotment holders launch campaign to save nation's plots*. [online] *The Guardian*. Available at: <http://www.theguardian.com/lifeandstyle/2015/feb/09/farm-terrace-allotment-holders-launch-campaign-to-save-nations-plots> [Accessed 30 Jul. 2015].
- Anderson, K. (2000) The beast within": face, humanity, and animality, *Environment and Planning D: Society and Space* 18 (3): 301–320.
- Angotti, T. (2015). Urban agriculture: long-term strategy or impossible dream?, *Public Health*, 129 (4), 336-341.

- Arnett, G. (2013). *UK population: how will it change of the next few decades?* [online] Available at: <http://www.theguardian.com/news/datablog/2013/nov/06/uk-population-increase-births-migration> [Accessed 05 May 2015].
- Badami, M. and Ramankutty, N. (2015). Urban agriculture and food security: A critique based on an assessment of urban land constraints, *Global Food Security*, 4, 8-15.
- Bakker, N., Dubbeling, M., Gündel, S., Sabel-Koshella, U. and van de Zeeuw, H. (eds) (2000). *Growing cities, growing food. Urban agriculture on the policy agenda*. Fedefing: DSE.
- Barbosa, O., Tratalos, J., Armsworth, P., Davies, R., Fuller, R., Johnson, P. and Gaston, K. (2007). Who benefits from access to green space? A case study from Sheffield, UK, *Landscape and Urban Planning*, 83 (2-3), 187-195.
- Barclay, C (2012). *UK Parliamentary Briefing Note*. 22 March 2012. *Standard Note SN/SC/887*. Science and Environment Section. London: House of Commons Library.
- <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN00887> [Accessed 2 July 2016]
- Barthel, S. and Isendahl, C. (2013). Urban gardens, agricultures and waters: sources of resilience for long-term food security in cities, *Ecological Economies* 86, 224-234.
- Beatley, T. (2011). *Biophilic cities: Integrating nature into urban design and planning*. Washington, D.C.: Island Press.
- Bell, S. (2016). Introduction. In Bell, S., Fox-Kamper, R., Keshavarz, N., Benson, M., Caputo, S., Noori, S., Voight, A. (eds) (2016) *Urban Allotment Gardens in Europe*. COST. p. 1. New York, Routledge.

997

998 Bell, S., Fox-Kamper, R., Keshavarz, N., Benson, M., Caputo, S., Noori, S., Voight, A. (eds)

999 (2016). *Urban Allotment Gardens in Europe*. COST. New York, Routledge.

1000

1001 Bendt, P., Barthel, S. and Colding, J. (2013). Civic greening and environmental learning in

1002 public-access community gardens in Berlin, *Landscape and Urban Planning*, 109 (1), 18-30.

1003

1004 Beitin, R. (2011). Co-constructing the sustainable city: how indicators help is “grow” more

1005 than just food in community gardens, *Local Environment* 16 (6), 523-538.

1006

1007 Birmingham City Council (2017). *Birmingham Plan 2031 Adopted Local Plan*

1008 [https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development](https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development_plan_2031)

1009 [plan_2031](https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development_plan_2031) [accessed 7th February 2017] Birmingham City Council.

1010

1011 Bragg R, and Atkins, G. (2016). *A review of nature based interventions for mental health care*.

1012 Natural England Commissioned Report 204. Natural England, London. Available at:

1013 <http://publications.naturalengland.org.uk/publication/45138196346112> [Accessed 11 June

1014 2016].

1015 Breuste, J.H. and Artmann, M. (2015). Allotment Gardens Contribute to Urban Ecosystem

1016 Service: Case Study Salzburg, Austria - *Journal of Urban Planning and Development* 141 (3).

1017 Brighton & Hove City Council (2005). *Brighton and Hove Local Plan. Brighton & Hove Local*

1018 *Plan Policies Retained on Adoption of the Brighton & Hove City Plan Part One* (March 2016)

1019 [https://www.brighton-hove.gov.uk/sites/brighton-](https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/Saved%20Adopted%20Local%20Plan%20as%20at%20March%202016%20compressed.pdf)

1020 [hove.gov.uk/files/Saved%20Adopted%20Local%20Plan%20as%20at%20March%202016%20c](https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/Saved%20Adopted%20Local%20Plan%20as%20at%20March%202016%20compressed.pdf)

1021 [ompressed.pdf](https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/Saved%20Adopted%20Local%20Plan%20as%20at%20March%202016%20compressed.pdf) [accessed 1 February 2017].

1022

1023 Brighton & Hove City Council (2011). *Food Growing and Development Planning Advice Note*.
 1024 PAN 06 Note, <http://www.brighton-hove.gov.uk/sites/brighton->
 1025 [hove.gov.uk/files/downloads/ldf/PAN6-Food Growing and development-latest-](http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/downloads/ldf/PAN6-Food_Growing_and_development-latest-Sept2011.pdf)
 1026 [Sept2011.pdf](http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/downloads/ldf/PAN6-Food_Growing_and_development-latest-Sept2011.pdf) (accessed 20th June 2016).

1027

1028 Brighton & Hove City Council (2016). *Brighton and Hove City Plan. Part One. Brighton and*
 1029 *Hove City Council's Development Plan*. <http://www.brighton-hove.gov.uk/sites/brighton->
 1030 [hove.gov.uk/files/FINAL%20version%20cityplan%20March%202016compreswith%20forwar](http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/FINAL%20version%20cityplan%20March%202016compreswith%20forwar)
 1031 [d_0.pdf](http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/FINAL%20version%20cityplan%20March%202016compreswith%20forwar) (accessed 4th May 2017).

1032

1033 Bristol City Council (2011). *Bristol Development Framework Core Strategy*. Bristol City Council.

1034 Campaign for Protection of Rural England (2015). Allotments and Community Gardens in
 1035 Greater London, CPRE: London <http://www.cprelondon.org.uk/resources/item/2275->
 1036 [allotments-and-community-gardens-in-greater-london](http://www.cprelondon.org.uk/resources/item/2275-allotments-and-community-gardens-in-greater-london) [accessed 13th June 2017].

1037

1038 Campbell, M. and Campbell, I. (2013). *Allotment Waiting Lists in England 2013*. Transition
 1039 Town West Kirby in conjunction with the National Society of Allotment and Leisure
 1040 Gardeners.

1041

1042 Campbell, M. and Campbell, I. (2011). *Allotment Waiting Lists in England 2011*, Transition
 1043 Town West Kirby in conjunction with the National Society of Allotment and Leisure
 1044 Gardeners.

1045

1046 Camps-Calvet, M., Langemeyer, J., Calvet-Mir, L. and Gomez-Baggenhun, E (2016)
 1047 Ecosystem services provided by urban gardens in Barcelona, Spain: Insights for policy and
 1048 planning, *Environmental Science & Policy* 62, 14–23.

1049

1050 Chamberlain, L. (2013). *Fighting dirty*. [online]
 1051 [http://www.theguardian.com/lifeandstyle/gardening-blog/2013/mar/12/allotments-under-](http://www.theguardian.com/lifeandstyle/gardening-blog/2013/mar/12/allotments-under-threat)
 1052 [threat](http://www.theguardian.com/lifeandstyle/gardening-blog/2013/mar/12/allotments-under-threat) [Accessed 5 Sep. 2015].
 1053
 1054 Cooper, E. (2011). *The Allotment Pocket Bible*. Richmond: Pocket Bibles.
 1055
 1056 Cockrall-King, J. (2012) *Food and the City: Urban Agriculture and the New Food Revolution*.
 1057 London: Prometheus Books.
 1058
 1059 Costa, S., Fox-Kämper, R., Good, R., Sentić, I (2016). The position of urban allotment gardens
 1060 within the urban fabric. In Bell, S., Fox-Kamper, R., Keshavarz, N., Bell, S., Fox-Kamper, R.,
 1061 Keshavarz, N., Benson, M., Caputo, S., Noori, S., Voight, A. (eds) (2016) *Urban Allotment*
 1062 *Gardens in Europe*. Chapter 8, 201-228. COST. New York, Routledge.
 1063
 1064 Crouch, D. and Ward, C. (1997). *The Allotment*. Nottingham: Five Leaves.
 1065
 1066 Crouch, D. and Wiltshire, R., (2012). Designs on the plot: the future for allotments in urban
 1067 landscapes. In Viljoen, A. and Howe, J. (eds) *Continuous Productive Urban Landscapes*, 124-
 1068 131.
 1069 Cutaia, F. (2016) *Strategic Environmental Assessment : Integrating Landscape and Urban*
 1070 *Planning*, Dordrecht: Springer
 1071
 1072 Daniels, T. (2001). Smart Growth: A New American Approach to Regional Planning,
 1073 *Planning Practice and Research*, 16 (3-4), 271-279.
 1074
 1075 Darvill, T. (1998). Landscapes: myth or reality? in Jones, M. and Rotherham, I. D. (eds):
 1076 *Landscapes: Perception, Recognition and Management. Reconciling the Impossible?* Landscape
 1077 Archaeology and Ecology 3, Wildtrack Publishing, Sheffield, 8–16.
 1078

1079 Dempsey, N., Brown, C. and Bramley, G. (2012). The key to sustainable urban development
 1080 in UK cities? The influence of density on social sustainability, *Progress in Planning*, 77 (3), 89-
 1081 141.

1082 Department for Communities and Local Government (2012). *National Planning Policy*
 1083 *Framework*. March 2012. London: DCLG.
 1084 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/211695
 1085 [0.pdf](#) [Accessed 12 June 2016].

1086 Department for Communities and Local Government (2014). *Locally-led Garden Cities*.
 1087 Department for Communities and Local Government: London.
 1088 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/303324/2014
 1089 [0414_Locally-led_Garden_Cities_final_signed.pdf](#) (accessed 12th June 2016).

1090

1091 Department for Communities and Local Government (2015). *Land Value Estimates for Policy*
 1092 *Appraisal*. Department for Communities and Local Government: London.

1093

1094 Department for Communities and Local Government (2017) *Fixing our Broken Housing*
 1095 *Market*
 1096 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590464/Fixi
 1097 [ng_our_broken_housing_market_-_print_ready_version.pdf](#) [accessed 23 February 2017].

1098 Department for Communities and Local Government: London.

1099

1100 Drilling, M., Giedych, R, Ponizy et al. (2016). The idea of allotment gardens and the role of
 1101 spatial and urban planning. In Bell, S., Fox-Kamper, R., Keshavarz, N., Benson, M., Caputo,
 1102 S., Noori, S., Voight, A. (eds) (2016) *Urban Allotment Gardens in Europe*, 35-61. COST. New
 1103 York, Routledge.

1104

1105 Dudley MBC (2017). Dudley Allotments <http://www.dudley.gov.uk/see-and-do/parks->
 1106 [open-spaces/allotments/](#) [accessed 22 February 2017].

1107 Dudley MBC (2016). *Dudley Borough Development Strategy*. July 2016. Track changes
 1108 document post EIP. Available within *Planning Policy Documents*.
 1109 <http://www.dudley.gov.uk/resident/planning/planning-policy/> (accessed 16th June 2016)
 1110 Dudley Metropolitan Borough Council. *All about Dudley Borough. Joint Strategic Needs*
 1111 *Assessment* 2014. Dudley: Dudley MBC. Available at:
 1112 [http://www.allaboutdudley.info/AODB/publications/2014%20SNA%20synthesis%20docue](http://www.allaboutdudley.info/AODB/publications/2014%20SNA%20synthesis%20document.pdf)
 1113 [ment.pdf](http://www.allaboutdudley.info/AODB/publications/2014%20SNA%20synthesis%20document.pdf) (accessed 16th June 2016)
 1114 Dudley MBC (2015) *Draft food growing strategy*. Dudley: Dudley MBC.
 1115 Dudley MBC (2013) *Planning for Health* Supplementary Planning Document
 1116 [http://www.dudley.gov.uk/environment-planning/planning/planning-policy/local-](http://www.dudley.gov.uk/environment-planning/planning/planning-policy/local-developmentframework/health-spd/)
 1117 [developmentframework/health-spd/](http://www.dudley.gov.uk/environment-planning/planning/planning-policy/local-developmentframework/health-spd/) (accessed 2 September 2015).
 1118 Dunton, J. (2013). *Pickles faces High Court challenge over allotments decision*.
 1119 [http://www.planningresource.co.uk/article/1192231/pickles-faces-high-court-challenge-](http://www.planningresource.co.uk/article/1192231/pickles-faces-high-court-challenge-allotments-decision)
 1120 [allotments-decision](http://www.planningresource.co.uk/article/1192231/pickles-faces-high-court-challenge-allotments-decision) [Accessed 11 June. 2015].
 1121 Edensor , T. (2005). *Industrial Ruins: Spaces, Aesthetics and Materiality*. Berg, Oxford.
 1122
 1123 Eisenberg, E., Tappert, S., Thomas, N., Zilans, A. (2016). Political-economic urban
 1124 restructuring: urban allotment gardens in the entrepreneurial city. In Bell, S., Fox-Kamper,
 1125 R., Keshavarz, N., Benson, M., Caputo, S., Noori, S., Voight, A. (eds) (2016) *Urban Allotment*
 1126 *Gardens in Europe*. Chapter 4. 1-113. COST. New York, Routledge.
 1127
 1128 Elmqvist, T. et al. (eds) (2013). *Urbanization, biodiversity and ecosystem services: challenges and*
 1129 *opportunities*. Dordrecht: Springer.
 1130
 1131 Ernwein, M. (2014). Framing urban gardening and agriculture: on space, scale and the
 1132 public, *Geoforum* 56, 77-86.
 1133
 1134 Firth, C., Maye, D., and Pearson, D. (2011). Developing “community” in community
 1135 gardens, *Local Environment*, 16 (6), 555-568.

1136

1137 Förster, J., Barkmann, J., Fricke, R. Hotes, S., Kleyer, M., Kobbe, S., Kübler, D., Rumbaur, C.,

1138 Siegmund-Schultze, M., Seppelt, R., Settele, J., Spangenberg, J.H., Tekken, V., Václavík, T

1139 and Wittmer, H. (2015). Assessing ecosystem services for informing land-use decisions: a

1140 problem-oriented approach, *Ecology and Society* 20(3),31.

1141

1142 Gilchrist, K., Brown, C. and Montarzino, A. (2015). Workplace settings and wellbeing:

1143 Greenspace use and views contribute to employee wellbeing at peri-urban business sites,

1144 *Landscape and Urban Planning* 138, 32-40.

1145

1146 Glover, T.D. (2004). Social Capital in the lived experiences of community gardeners, *Leisure*

1147 *Sciences*, 26 (2), 143-162.

1148

1149 Gorgolewski, M., Komisar, J. and Nasr, J. (2011). *Carrot City*. New York: Monacelli Press.

1150

1151 Guitart, D., Pickering, C. and Byrne, J. (2012). Past results and future directions in urban

1152 community garden research, *Urban Forestry & Urban Greening* 11, 364-373.

1153

1154 Guliani, E. (2015) (ed.). *Planning and Conflict. Critical Perspectives on Contentious Urban*

1155 *Developments*. Abingdon: Routledge.

1156

1157 Hardman, M. and Larkham, P. (2014). The rise of the “food charter”: A mechanism to

1158 increase urban agriculture, *Land Use Policy* 39, 400-402.

1159

1160 Hinchcliffe , S. (1999). Cities and natures: intimate strangers, in Allen J., Massey, D. and

1161 Pryke, M. (eds): *Unsettling Cities: Movement/Settlement*. Routledge, London, 137–180.

1162

1163 Hinchcliffe, S. and Whatmore, S. (2006). Living cities: towards a politics of conviviality,

1164 *Science and Culture* 15 (2), 123–138.

1165

1166 HM Government (2011) Localism Act
 1167 <http://www.legislation.gov.uk/ukpga/2011/20/contents/enacted> (accessed 13th June 2017).
 1168
 1169 HM Treasury (2013) Green Book [https://www.gov.uk/government/publications/the-green-](https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government)
 1170 [book-appraisal-and-evaluation-in-central-government](https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government) [accessed 23 March 2016].
 1171
 1172 Holland, L. (2004). Diversity and Connections in Community Gardens: a contribution to
 1173 local sustainability, *Local Environment* 9 (3), 285-305.
 1174
 1175 Hough, M. (2004). *Cities and Natural Process*. 1st ed. London: Routledge
 1176
 1177 Hubbard, P. (2011). Thinking spaces, differently?, *Dialogues in Human Geography* 2 (1), 23–26.
 1178
 1179 Irvine, S., Johnson, L. and Peters, K. (1999). Community gardens and sustainable land use
 1180 planning: a case study of the Alex Wilson community garden, *Local Environment*, 4 (1), 33-46.
 1181
 1182 Jenks, M, Burton, E and Williams, K. (1996). *The Compact City*, London: E & FN Spon.
 1183
 1184 Jepson, E. and Edwards, M. (2010). How Possible is Sustainable Urban Development? An
 1185 Analysis of Planners' Perceptions about New Urbanism, Smart Growth and the Ecological
 1186 City, *Planning Practice and Research* 25 (4), 417-437.
 1187
 1188 Jerme, E. and Wakefield, S. (2013). Growing a just garden: environmental justice and the
 1189 development of a community garden policy for Hamilton, Ontario. *Planning Theory &*
 1190 *Practice*, 14 (3), 295-314.
 1191
 1192 Keshvarz, N. and Bell, S (2016). A history of urban gardens in Europe. In Bell, S., Fox-
 1193 Kamper, R., Keshavarz, N., Benson, M., Caputo, S., Noori, S., Voight, A. (eds) (2016) *Urban*
 1194 *Allotment Gardens in Europe*. COST. New York, Routledge.
 1195

- Kingsley, J. and Townsend, M. (2006) 'Dig In' to social capital: community gardens as mechanisms for growing urban social connectedness, *Urban Policy and Research* 24(4), 525-537.
- Kingsley, J., Townsend, M. and Henderson-Wilson, C. (2009). Cultivating health and wellbeing: members' perceptions of the health benefits of a Port Melbourne community garden, *Leisure Studies* 28 (3), 207-219.
- Kurtz, H. (2001). Differentiating multiple meanings of garden and community, *Urban Geography* 22 (7), 656-670.
- La Rosa, D., Barbarossa, L., Privitera, R. and Martinico, F. (2014). Agriculture and the city: A method for sustainable planning of new forms of agriculture in urban contexts, *Land Use Policy*, 41, 290-303.
- Leake, J. R., Adam-Bradford, A. and Rigby, J. E. (2009). Health benefits of 'grow your own' food in urban areas: implications for contaminated land risk assessment and risk management?, *Environmental Health* 8 (Suppl 1), 56.
- Leendertz, L. (2013). Help, developers are threatening my allotment [online] Available at: <http://www.telegraph.co.uk/gardening/plants/vegetables/allotments/9899459/Help-developers-are-threatening-my-allotment.html> [Accessed 20 June 2015].
- Lebfevre, H. (1991). *The Production of Space*. Blackwell, Oxford.
- Lin, B., Philpott, S. and Jha, S. (2015). The future of urban agriculture and biodiversity-ecosystem services: Challenges and next steps, *Basic and Applied Ecology*, 16(3), 189-201
- Lohrberg, F., Lička, L., Scazzosi, L., Timpe (2016). *Urban Agriculture Europe*. Berlin: Jovis.

- Longhurst R. (2006). Plots, Plants and Paradoxes: Contemporary Domestic Gardens in Aotearoa/New Zealand, *Social & Cultural Geography* 7(4): 581–593.
- Lyons, M (2015). *The Lyons Housing Review, Mobilising across the nation to build the homes our children need*. London, Lyons Review.
- McMorran, R., Scott A.J. and Price, M. (2014). Reconstructing sustainability; participant experiences of community land tenure in North West Scotland, *Journal of Rural Studies* 33, 20–31.
- Martin, R. and Marsden, T. (1999). Food for urban spaces: The development of urban food production in England and Wales, *International Planning Studies*, 4(3), 389–412.
- McVeigh, T. (2015). Losing the plot. The fight is on to save our green and pleasant allotments, *The Guardian*. Sunday 17th May 2015. Available at: <https://www.theguardian.com/lifeandstyle/2015/may/17/allotments-threat-housing-cities-green-spaces> [accessed 20 June 2016].
- Meinig, D. W. (1979). Reading the landscape, in: D. W. Meinig (Ed.) *The Interpretation of Ordinary Landscapes: Geographical Essays*, 195–244 (Oxford: Oxford University Press).
- Mell, I. C. (2014) Aligning fragmented planning structures through a green infrastructure approach to urban development in the UK and USA', *Urban Forestry & Urban Greening*, 13(4), 612–620.
- Merriman P. (2005). Respect the life of the countryside": the Country Code, government and the conduct of visitors to the countryside in post-war England and Wales', *Transactions of the Institute of British Geographers* NS 30 (3): 336–350.

- Merriman, P., Jones, M., Olsson, G., Sheppard, E., Thrift, N. and Tuan, Y.-F. (2012). Space and spatiality in theory, *Dialogues in Human Geography* 2 (1), 3–22.
- Metcalf, K., Minnear, J., Kleinert, T. and Tedder, V. (2012). Community Food Growing and the Role of Women in the Alternative Economy in Tower Hamlets. *Local Economy* 27(8): 877–882.
- Miazzo, F. and Minkja, M. (2013). *Farming the City: Food as a Tool for Today*. CITES: Amsterdam.
- Moore, N., Church, A. and Gabb, J. (2014). Growing intimate private publics: Everyday utopia in the nature cultures of a young lesbian and bisexual women’s allotment, *Feminist Theory*, 15 (3): 327-343.
- Moran, D. (1990). *The Allotment Movement in Britain*. New York: Peter Lang.
- Morgan, K. (2014). The new urban foodscape: Planning, politics and power. In Viljoen, A. and Bohn, K., (eds) (2014). *Second nature urban agriculture: designing productive cities*. Abingdon: Routledge, 18-23.
- Moseley, D., Marzano, M., Chetcuti, J. and Watts, K. (2013). Green networks for people: Application of a functional approach to support the planning and management of greenspace, *Landscape and Urban Planning*, 116, 1-12.
- Nasr, J., Komisar, J. and Gorgolewski, M. (2014). Urban agriculture as ordinary urban practice: Trends and lessons. In Viljoen, A. and Bohn, K. (eds) (2014). *Second nature urban agriculture: designing productive cities*. Abingdon: Routledge, 24-31.

1284 Nathan, M. and Overman H.G. (2011). *What we Know (and Don't Know) About the Links*
 1285 *between Planning and Economic Performance*, SERG Policy Paper 10: UK Spatial Economics
 1286 Research Centre: London.

1287 National Society of Allotment and Leisure Gardeners, NSALG (2016). *Brief History of*
 1288 *Allotments*. <http://www.nsalg.org.uk/allotment-info/brief-history-of-allotments/> [Accessed 23
 1289 June 2016]

1290

1291 NEA (2011). *The UK National Ecosystem Assessment: Synthesis of the Key Findings*. United
 1292 Nations Environment Programme World Conservation Monitoring Centre, Cambridge.

1293

1294 Newby H (1979). *Green and Pleasant Land: Social Change in Rural England*, Hutchinson:
 1295 London.

1296

1297 Nikolaidou, S., Klöti, T., Tappert, S. and Drilling, M. (2016). Urban Gardening and Green
 1298 Space Governance: Towards New Collaborative Planning Practices, *Urban Planning*, 1 (1), 5-
 1299 19.

1300

1301 Olwig, K. (2003). Landscape: the Lowenthal legacy, *Annals of the Association of American*
 1302 *Geographers* 93 (4): 871–877.

1303

1304 Perez-Vazquez, A., Anderson, S., Wiltshire, R. and Fraser, R., (2006). Valuing non-market
 1305 benefits derived from allotments in southeast England: A contingent valuation study, *The*
 1306 *International Journal of Sustainable Development and World Ecology*, 13(2), 103-112.

1307

1308 Peschardt, K.K. and Stigsdotter, U.K. (2013). Associations between park characteristics and
 1309 perceived restorativeness of small public urban green spaces, *Landscape and Urban Planning*
 1310 112, 26–39.

1311

1312 Preston, B. and Wilson, M.W. (2014). Practicing GIS as Mixed Method: Affordances
 1313 and Limitations in an Urban Gardening Study, *Annals of the Association of American*
 1314 *Geographers*, 104 (3), 510-529.

1315

1316 Port, C. and Moos, M. (2014). Growing Food in the Suburbs: Estimating the Land Potential
 1317 for Sub-urban Agriculture in Waterloo, Ontario, *Planning Practice and Research*, 29(2), 152--
 1318 170.

1319

1320 Porteous, J. D. (1985). Smellscape, *Progress in Human Geography*, 9 (3): 356–378.

1321

1322 Porteous, J. D. and Mastin, J. F. (1985). Soundscape, *Journal of Architectural and Planning*
 1323 *Research* 2 (3): 169–186.

1324

1325 Prager, K., Reed, M. and Scott A.J. (2011) Encouraging collaboration for the provision of
 1326 ecosystem services across multiple scales – rethinking agri-environmental payments, *Land*
 1327 *Use Policy* 29 (1): 244-249.

1328 Quale, H. (2009). *The true value of community farms and gardens: social, environmental, health and*
 1329 *economic*. Northern Rock Foundation / Northumbria University / Regeneration Exchange.
 1330 Newcastle upon Tyne.

1331 Queens Road Allotments (2016). Wordpress.
 1332 <https://queensroadallotments.wordpress.com/save-our-allotments/> [Accessed 2 June 2016]

1333

1334 Qvistrom, M. (2007). Landscapes out of order: studying the inner urban fringe beyond the
 1335 rural–urban divide, *Geografiska Annaler: Series B, Human Geography* 89 (3): 269–282.

1336

1337 Rabbitts, P (2013). *Watford Allotments Strategy - 2013 – 2018*, Watford Borough Council.
 1338 Watford .

1339

1340 Reynolds, R. (2009). *On Guerrilla Gardening*. London: Bloomsbury.

1341
 1342 Reynolds, F. (2014). Allotment boom at risk because of planning squeeze - National Trust.
 1343 [online] Nationaltrust.org.uk. Available at: [http://www.nationaltrust.org.uk/article-](http://www.nationaltrust.org.uk/article-1356398922350/)
 1344 [1356398922350/](http://www.nationaltrust.org.uk/article-1356398922350/) [Accessed 4 Jul. 2015].
 1345
 1346 Rudlin, D. and Falk, N. (2009). *Sustainable Urban Neighbourhood*, Oxford: Architectural Press.
 1347
 1348 Sayce, S., Walford, N. and Garside, P. (2012). Residential development on gardens in
 1349 England: Their role in providing sustainable housing supply, *Land Use Policy*, 29(4), 771-780.
 1350
 1351 Schoneboom, A. and May, J. (2013). Working through the allotment, *ephemera: theory and*
 1352 *politics in organizations* 13(1), 137-150.
 1353
 1354 Scott A. J. (2002). Assessing public perception of landscape: the LANDMAP experience,
 1355 *Landscape Research*, 27 (3), 271-295.
 1356
 1357 Scott, A. J., Carter, C., Brown, K. and White, V. (2009). Seeing is not everything: exploring
 1358 the landscape experiences of different publics. *Landscape Research*, 34(4), 397-424.
 1359
 1360 Scott, A.J., Carter, C., Hölzinger, O., Everard, M., Raffaelli, D., Hardman, M., Glass, J.,
 1361 Leach, K., Wakeford, R., Reed, M., Grace, M., Sunderland, T., Waters, R., Corstanje, R.,
 1362 Grayson, N., Harris, J and Taft, A. (2014) *Tools – Applications, Benefits and Linkages for*
 1363 *Ecosystem Science (TABLES)*, Final Report to the UNEPWMC Research Councils UK, Welsh
 1364 Government and Defra June 2014. UNEP-WCMC, LWEC, UK.
 1365
 1366 Scott, A.J., Carter, C.E., Larkham, P., Reed, M., Morton, N., Waters, R., Adams, D., Collier,
 1367 D., Crean, C., Curzon, R., Forster, R., Gibbs, P., Grayson, N., Hardman, M., Hearle, A., Jarvis,
 1368 D., Kennet, M. Leach, K., Middleton, M., Schiessel, N., Stonyer, B., Coles, R. (2013)
 Disintegrated Development at the Rural Urban Fringe Disintegrated Scott (2011) : Re-
 connecting spatial planning theory and practice, *Progress in Planning* 83, 1-52.

1369 Slee, R.W. (2005). From Countrysides of Production to Countrysides of Consumption?, *The*
1370 *Journal of Agricultural Science* 143 (04), 255 – 265
1371

1372 Soini, K., Vaarala, H. and Pouta, E. (2012). Residents' sense of place and landscape
1373 perceptions at the rural-urban interface, *Landscape and Urban Planning*, 104(1), 124--134
1374

1375 Speak, A. F., Mizgajski, A. and Borysiak, J. (2015). Allotment gardens and parks: Provision of
1376 ecosystem services with an emphasis on biodiversity, *Urban Forestry & Urban Greening* 14,
1377 772–781.

1378 Spiklová, J., and Vágner, J. (2016). The loss of land devoted to allotment gardening: The
1379 context of the contrasting pressures of urban planning, public and private interests in
1380 Prague, Czechia, *Land Use Policy*. 52, 232-239.
1381

1382 Stephan, B., Carl, F., Johan, C. (2010). Social-ecological memory in urban gardens: retaining
1383 the capacity for management of ecosystem services, *Global Environment Change*, 20: 255-265.
1384

1385 Steward, C. (2012). Gardeners dig in for shanty town battle exclusive allotment holders
1386 anger at council ban on sheds after complaints from home owners, *Evening Times*. [online]
1387 Available at: [http://www.eveningtimes.co.uk/news/gardeners-dig-in-for-shanty-town-battle-](http://www.eveningtimes.co.uk/news/gardeners-dig-in-for-shanty-town-battle-exclusive-allotment-holders-anger-at-council-ban-on-sheds-after-complaints-from-hom)
1388 [exclusive-allotment-holders-anger-at-council-ban-on-sheds-after-complaints-from-hom](http://www.eveningtimes.co.uk/news/gardeners-dig-in-for-shanty-town-battle-exclusive-allotment-holders-anger-at-council-ban-on-sheds-after-complaints-from-hom)
1389 [Accessed 04 August 2015].

1390 Swanwick, C. (2009). Society's attitudes to and preferences for land and landscape. *Land Use*
1391 *Policy* 26, 62--75.

1392 Swords, J. and Jeffries, M. (2015). Tracing Post-Representational Visions of the City –
1393 Representing the Unrepresentable Skateworlds of Tyneside. *Environment and Planning A*, 47:
1394 1313-1331
1395

1396 Tornaghi, C. (2014). Critical geography of urban agriculture. *Progress in Human Geography*. 38
1397 (4) 1-17.

1398

1399 Tratalos, J., Fuller, R., Warren, P., Davies, R. and Gaston, K. (2007). Urban form, biodiversity
1400 potential and ecosystem services, *Landscape and Urban Planning* 83 (4), 308-317.

1401

1402 Tress, B., Tress, G., & Fry, G. (2005). Integrative studies on rural landscapes: Policy
1403 expectations and research practice, *Landscape and Urban Planning* 70 (1/2), 177–191.

1404

1405 Turner, B. (2011). Embodied Connections: sustainability, food systems and community
1406 gardens, *Local Environment* 16 (6), 509-522.

1407

1408 Turner, B., Henryks, J. and Pearson, D. (2011). Community Gardens: sustainability, health
1409 and inclusion in the city, *Local Environment* 16 (6), 489-292.

1410

1411 UKNEAFO UK National Ecosystem Assessment Follow-on (2014). *The UK National*
1412 *Ecosystem Assessment Follow-on: Synthesis of the Key Findings*. UNEP-WCMC, LWEC, UK.

1413

1414 Van den Berg, A. and van Winsum-Westra, M. (2010). Manicured, romantic, or wild? The
1415 relation between need for structure and preferences for garden styles, *Urban Forestry &*
1416 *Urban Greening* 9 (3), 179–186.

1417

1418 Van den Berg, A., Van Winsum-Westra, M., de Vries, S., Van Dillen, S. (2010). Allotment
1419 gardening and health: a comparative survey among allotment gardeners and their
1420 neighbours without an allotment, *Environmental Health* 9 (74). doi:10.1186/1476-069X-9-74.

1421 Viljoen, A.; Bohn, K. and Howe, J. (eds) (2005). *Continuous Productive Landscapes: Designing*
1422 *Urban Agriculture for Sustainable Cities*. Architectural Press. Amsterdam.

1423

1424 Viljoen, A. and Bohn, K. (eds) (2014). *Second nature urban agriculture: designing productive*
1425 *cities*. Abingdon: Routledge.
1426
1427 Way, T. (2008). *Allotments*. Botley: Shire.
1428
1429 Whatmore, S. and Thorne, L. (1998). Wild(er)ness: reconfiguring the geographies of wildlife,
1430 *Transactions of the Institute of British Geographers* NS 23 (4): 435–454.
1431
1432 Wood C.J.; Pretty, J. and Griffin, M. (2016). A case–control study of the health and well-being
1433 benefits of allotment gardening, *Journal of Public Health*, 38 (3), 336-344.
1434
1435
1436
1437
1438
1439
1440